

What is claimed is:

- 1 1. A coupler for coupling light in an optical system, the coupler comprising:
2 a plurality of discrete layers of alternating optical materials having respective
3 first and second indexes of refraction for coupling light of a given
4 wavelength, the thickness of each layer being a fraction of the light
5 wavelength.
- 1 2. A coupler according to claim 1, in which the fraction is about 1/10.
- 1 3. A coupler according to claim 1, in which the materials are silicon and silicon
2 nitride.
- 3 4. A coupler according to claim 1, in which the materials are silicon and silicon
4 rich nitride.
- 1 5. A method for coupling light in an optical system comprising: ✓
2 providing a plurality of discrete layers of alternating optical materials having
3 respective first and second indexes of refraction for coupling light of a
4 given wavelength, the thickness of each layer being a fraction of the
5 light wavelength.
- 1 6. A method according to claim 5, in which the fraction is about 1/10.
- 1 7. A method according to claim 5, in which the materials are silicon and silicon
2 nitride.
- 1 8. A method according to claim 5, in which the materials are silicon and silicon
2 rich nitride.